October 26, 1981

Dear Manufacturer:

SUBJECT: Questions on the Revised Certification Procedures

On October 13, 1981, EPA published regulations (FR 50464) intended to reduce the burden of the EPA certification procedures for motor vehicle and engine manufacturers. These regulations will substantially reduce the testing and reporting requirements of the certification process without significantly increasing noncompliance risks.

Because of the extensive nature of these revisions it is likely that many detailed implementation questions will arise. To aid in the smooth implementation of these rules we have compiled the enclosed list of questions and answers that should help explain the areas of these rules where we anticipate that manufacturers may have questions. We would also like to encourage you to contact your certification team if you encounter or anticipate any implementation difficulties or have any further questions.

Sincerely yours,

Robert E. Maxwell, Director
Certification Division
Mobile Source Air Pollution Control

Enclosure

Enclosure I
Questions on the Revised Certification Procedures

NOTE: The majority of these questions and answers apply to both light-duty and heavy-duty manufacturers. For the sake of clarity the heavy-duty regulatory citation, if different than the light-duty citation, is included in brackets after the light-duty citation. The heavy-duty manufacturers should insert the comparable terminology (e.g., emission-data engine for emission-data vehicle, 125-hours for 4,000 miles, durability engine for durability vehicle) in place of the light-duty terminology.

Questions of general nature:

1. Question: how does the implementation of these regulations affect the provisions of the Abbreviated Certification Review procedures outlined in §86.080-12?

   Answer: Paragraph III (Description of Changes") of the preamble of these regulations addresses the Abbreviated Certification Review procedure. As indicated in that paragraph and in the remainder of the preamble EPA intends to use the Abbreviated Certification Review procedure to allow manufacturers to continue to exercise control over major portions of their certification programs. Manufacturers should immediately assume the responsibility for certain actions as indicated in the preamble. Updated lists of responsibilities are contained in Enclosures II and III.

2. Question: Section 86.082-26(a)(7) §86.082-26(b)(9)] allows manufacturers to delay the submission of vehicle information and test data until after the 5,000-mile test for durability-data vehicles and until after the first emission-data test (that will be used for certification) for emission-data vehicles. Under this change what information should be submitted?

   Answer: The information that should be submitted for each vehicle has not been changed by these regulations. Manufacturers should continue to submit the-same information that is currently being submitted. (The information that should be submitted can be found in the applicable application format for certification and the data supplement to the application format.)

   The manufacturer should submit the necessary information for each emission-data vehicle that is to be used to support a certificate and each durability-data vehicle that is tested at the 5,000-mile test point. If an emission-data vehicle generates data that is to be used to support a certificate,

then complete information on that vehicle, including a test and maintenance history of the vehicle in the configuration submitted for certification, must be submitted. The emissions of a reconfigured vehicle must be stabilized prior to testing for certification. In the case of reconfigured vehicles for which the manufacturer has previously submitted information, the manufacturer need not resubmit replicate information but may submit updates and reference the original submission. Emission-data vehicles that do not generate data that are ultimately used to support a certificate, and durability-data vehicles that are discontinued prior to the 5,000-mile test point, no longer need to be reported.

3. Question: The acceptability of the minimum lead content for leaded mileage accumulation fuel is now linked to an in-use fuel survey to be specified by the Administrator. What survey is EPA specifying and can fuel meeting the previous specification of 1.4 grams/gal be used at least until current supplies are exhausted? If the survey lead content increases, at what point must the change be made and will it affect carryover?

Answer: The survey to use is published by the Bartlesville Energy Technology Center, Department of Energy. This publication is updated semiannually, summer and winter. Either of the latest two surveys available at the time mileage accumulation started on a test vehicle may be used. The current survey entitled "Motor Gasolines, Winter 1980-81" was published in July 1981 and is designated DOE/EETC/PSS-81/3. Using that survey the acceptable minimum lead content is 0.94 grams/gal.

Fuel meeting the 1.4 grams/gal specification of the previous criteria can still be used as can any other fuel that has a lead content higher than the current minimum specification. If the minimum lead content increases as a result of the survey (which is not likely), manufacturers may use fuel with as little as the previous minimum for six months following the publication of the latest survey, or through the model year's certification testing that had begun before the survey was published. Carryover will not be precluded solely due to a change in the minimum lead content.

4. Question: Section 86.082-24(g)(3)(ii) [does not apply to heavy-duty] allows the manufacturer to not install optional equipment normally required on the test vehicles under paragraph (g)(3)(i) if the manufacturer determines by test data or engineering evaluation that the equipment does not affect emissions or fuel economy. The difference or lack of difference in emission and fuel economy caused by optional

equipment on test vehicles is easily demonstrated by testing. However, what type of information is acceptable when an engineering evaluation is used to justify the deletion of optional equipment?

Answer: A manufacturer could assess the effects of the installation of the optional equipment on the vehicle's fuel economy and emission performance by utilizing fuel economy and emission data previously obtained from the testing of development vehicles or by an engineering evaluation of its effect on engine loading during an FTP (e.g., increased horsepower requirements) which would suggest potential effects on emissions or fuel economy.

5. Question: These regulations affect several areas of the vehicle testing and data reporting requirements in the certification procedure. If data are to be carried over from a model year prior to the implementation of these rules how will the changes in procedures affect the data?

Answer: Whenever data are carried over these data are subject to the requirements in force in the new model year. For example, if 1982 data that was generated prior to the publication of these regulations were to be carried over for use in the 1983 model year and the manufacturer has opted to use the outlier procedure for the 1983 model year, then the carryover data will be screened by the outlier procedure.

6. Question: Section 86.082-24(a) now allows engines which have different dimensions from the centerline of the crankshaft to the centerline of the camshaft, and from the centerline of the crankshaft to the top of the cylinder block head face to be classified in the same engine family. It is possible that a manufacturer previously certified two engine families that differed only in these two dimensions. In considering carryover for these families for the 1983 model year, may the two families be combined into one family and the best deterioration factor used for the new family?

Answer: EPA intends to apply the regulations to both new model year certification and carryover of data from previous model years. Therefore the two engines may now be combined into one engine family. However, selecting the best deterioration factor would not be considered appropriate. As required by §86.082-28(a)(4)(i)(A)(l) the test results for all tests

conducted on all durability-data vehicles must be included in the calculation of the deterioration factor. If only one of the two engines is to be certified in the new model year, only the data from that engine would be carried over.

Questions concerning durability:

7. question: Under §86.082-24(e)(2), manufacturers are now allowed to certify up to 10,000 units (LDV, LDT, and HDE) using an assigned deterioration factor. Since the previous provisions for an assigned deterioration factor have not been deleted can a manufacturer now use an assigned deterioration factor to certify, for example:

1. 10,000 LDV's under paragraph (e)(2), and

2. If projected sales for LDT and HDE's is less than 2,000 for each class certify these classes under the provisions of paragraph (e)(1)?

Answer: The provisions of §86.082-24(e)(2) allow a manufacturer to certify up to 10,000 vehicles and engines using assigned deterioration factors. All vehicles and engines that have qualified for, and used, assigned deterioration factors for certification as a result of §86.082-24(e)(1) must be included in the calculation of the total number of vehicles and engines certified using an assigned deterioration factor for the purpose of determining eligibility under §86.082-24(c)(2). Therefore the situation described in the example would not be allowed.

8. Question: Section 86.082-2b(a)(4) [§86.082-26(b)(6)] allows the manufacturer to establish the durability-data vehicle test point mileage intervals between 5,000 to 50,000 miles. The new provisions state that the mileage intervals shall be of equal length except for certain listed conditions. What are examples of acceptable test schedules?

Answer: The regulations require that the mileage intervals be of equal length except for the first, last, and the before-and after-maintenance intervals. For example, for a 10,000-mile test interval, test points would be established at equal intervals, starting at the 5,000-mile point, without regard to maintenance points or the 50,000-mile point (e.g., at 5,000; 15,000; 25,000; 35,000; and 45,000 miles), then add before- and after-maintenance tests to be performed (e.g., at 30,000 miles) and the required 50,000-mile point. This would result in a test schedule for 10,000-mile intervals as follows:

5,000; 15,000; 25,000; 30,000 (before-and after-maintenance); 35,000, 45,000 and 50,000 miles. Another example with 20,000-mile intervals would be testing performed at 5,000; 25,000; 30,000 (before-and after-maintenance); 45,000; and 50,000 miles. Any other schedule developed by the manufacturer which complies with the test mileage interval criteria would be acceptable.

9. Question: Section 86.082-28(a)(4)(i)(A)(4) [§86.082-28(b)(4)(i)(A)(4)] and §86.082-26(a)(6)(i) [§86.082-26(b)(8)(ii)] allow the use of an outlier procedure and multiple test averaging for durability data. If these options are exercised what data must be submitted?

Answer: The test results from each test must still be reported even if these data are to be used in the calculation of an average or will eventually be deleted by the outlier procedure.

10. question: Section 86.082-26(a)(6)(i) [§86.082-26(b)(8)(ii)] allows the manufacturer to conduct multiple tests at any test point at which the data will be used in the calculation of the deterioration factor. This provision provides that the number of tests must be the same at each test point and may not exceed three, unless the manufacturer chooses to average the test results. If the manufacturer chooses to average the test results it may conduct more than the minimum number of tests conducted at other test points. How would averaging be applied if, for example, a durability-data vehicle has been emission tested twice at all test points, including before- and after-maintenance, but four tests were conducted at the 50,000-mile test point?

Answer: When the manufacturer chooses to conduct more tests at a test point than the minimum number conducted at other test points the results of all multiple tests must be averaged together. In the example given in the question, the tests at all test points must be averaged because of the increased number of tests at the 50,000-mile test point. The before-and after-maintenance tests must be averaged but not with each other. That is, all before tests are averaged together and all maintenance tests are averaged together. The averaging will create one test result for each test point to be used in the

deterioration factor calculation.

11. Question: When averaging multiple test data, when should the data be rounded?

Answer: Because EPA receives only rounded values from the manufacturers any averaging done at EPA will necessarily be done on rounded values. In addition, the resulting average will also be rounded so its precision will-be consistent with the remainder of the data. Manufacturers should therefore round all test values prior to averaging and also round the resulting average. All rounding should be done in accordance with ASTM E 29-67.

12. Question: Section 86.082-28(a)(4)(i)(A)(4) [§86.082-28(b)(4)(i)(A)(4)] allows manufacturers to use an outlier procedure and to reject durability data that are identified as outliers by the procedure. Also, the procedure that will be used is to be specified by the Administrator. What procedure will be used?

Answer: The outlier procedure that EPA will use is very similar to the procedure that has been used by the California Air Resources Board. A description of the procedure can be found in Appendix I, attached. Whenever the procedure identifies a data point as an outlier for a particular exhaust pollutant, then that test value for that pollutant will be automatically deleted from the data set used to calculate the deterioration factor.

The use of the outlier procedure will be optional. The outlier option may be exercised separately for light-duty vehicles, light-duty trucks, and heavy-duty engines. Within each of these classifications the manufacturer must notify EPA if it intends to use the outlier procedure prior to the issuance of the first certificate following the effective date of these regulations for each model year. For engine families covered by certificates issued prior to the effective date of these regulations the outlier option does not apply.

If the outlier procedure is to be applied to a durability-data

set containing averaged test data the averaging must be completed prior to the application of the outlier procedure.

Please note that the outlier procedure is only routinely applicable to the normal cases of straightforward deterioration factor calculation. Other situations, such as step changes in the deterioration, must be evaluated on a case-by-case basis with EPA. When a manufacturer intends to generate durability data of this type and apply the outlier procedure to it, the manufacturer should contact EPA so that any possible data processing problems may be resolved.

13. Question: Section 86.082-26(a)(4)(iv) provides the manufacturer the option of altering a durability-data vehicle at the selected test point to represent emission-data vehicles within the same engine-system combination. Can EPA provide some guidance on the types of vehicle alterations that should be avoided under this provision?

Answer: To preclude jeopardizing the representativeness of the durability-data vehicle accumulation, alterations which may affect deterioration factors should not be performed. In general, alterations which involve the catalyst or access to the combustion chamber are not acceptable. Following emission-data testing, the manufacturer must restore the durability-data vehicle to its proper configuration before testing. It should be noted that the restrictions regarding the use of the same vehicle or engine for both emission and durability data (i.e., must be calibrated the same and meet the same selection criteria) that were listed in section 8 of the Certification Program Policy Changes, dated July 1, 1981, are no longer in effect. A heavy-duty durability-data engine may also be recalibrated and tested for emission data.

Questions concerning Emission-data vehicles:

14. Question: Section 86.082-24(b)(1)(i) [§86.082-24(b)(2)(iii)(A)] requires an emission-data vehicle be selected based on specific criteria that may be substantially different from the criteria used in previous model years. If an engine family that was certified prior to the implementation of these changes is unchanged, will the changes in the vehicle selection criteria prohibit the certification of that engine family by carryover of emission data without further testing?

Answer: EPA will not preclude the carryover of emission data if the only change in the engine family test vehicle selection is due to the change in the test vehicle selection criteria.

15. Question: Section 86.082-24(b)(1)(ii) [§86.082-24(b)(2)(iii)(B)] requires that an additional test vehicle be selected within each engine family. If the selection under this paragraph differs only slightly from the vehicle selected under paragraph (b)(l)(i), does an additional test vehicle need to be selected?

Answer: Most engine families will normally be represented by two emission-data vehicles. However, some engine families with very limited product offerings may qualify for a waiver of the requirement to test the selection required under §86.082-24 (b)(l)(ii). Such waivers should only be granted if all of the vehicles within the engine family are so similar that the second emission-data vehicle selection is essentially the same as the first selection under paragraph (b)(l)(i). For light-duty vehicles and light-duty trucks, similar means:

1. Same engine code (may be a different engine code if the only difference is air conditioning).

2. Same equivalent test weight.

3. Same transmission configuration.

4. Same N/V ratio (within 3 percent in any of the forward gears).

5. Same shift procedure for manual transmissions (within 3 mph at any shift point).

6. Same road load horsepower (within 10 percent).

For heavy-duty gasoline engines, the waiver applies to engine families with only one engine code.

16. Question: Section 86.082-24(b)(1)(i) [§86.082-24(b)(2)(iii)(A)] specifies the criteria to be followed in selecting the first emission-data vehicle within an engine family. One of the criteria listed is the highest fuel flow at the speed of maximum rated torque. How does EPA propose that a manufacturer determine the highest fuel flow at the speed of maximum rated torque?

Answer EPA will generally accept any method the manufacturer utilizes in determining the vehicle with the highest fuel flow providing the manufacturer utilizes a consistent standardized procedure in making that determination. EPA assumes that the manufacturer has determinations of the engine's maximum torque and speed at maximum torque, along with data on air flow and fuel flow under these conditions. This information can be used in conjunction with the carburetor flow curves to determine the highest fuel flow at the speed of maximum rated torque.

Question: What justification will EPA accept for the selection of the test vehicle under §86.082-24(b)(1)(ii) [§86.082-24(b)(2)(iii)(B)] that represents the vehicle expected to exhibit the highest emissions of those vehicles remaining in the engine family?

Answer: The manufacturer should make the selection based on its technical judgment or evaluation of the emission performance of the vehicles remaining in the engine family. EPA does not expect manufacturers to conduct an extensive program to determine worst-case vehicles, nor does EPA intend to challenge manufacturers' selections unless EPA suspects that a manufacturer is purposefully subverting the intent of these regulations. Manufacturers may also use the established Abbreviated Certification Review guidelines for selecting a worst-case vehicle.

18. Question: When using the criteria under §86.082-24(b)(1) [does not apply to heavy-duty] it is possible to select vehicles for a 50-state family, to have both of the selected test vehicles represent vehicles designated as California-only sales vehicles. Is this acceptable?

Answer: For a vehicle to be included in a 50-state family it must comply with the applicable Federal emission standards. Regardless of the manufacturer's sales designation these vehicles are certified for sale in the 49 states. Therefore, if the manufacturer properly selects its emission-data vehicles (that is, they truly represent the worst emitters of the engine family), and both of the selections happen to be designated by the manufacturer as California-only sales vehicles, the selections will be considered acceptable. EPA will not require additional vehicles to be selected based on sales designation under these conditions.

19. Question: Section 86.082-26(a)(3)(i)(A) [§86.082-26(b)(5)] states that the manufacturer shall determine, for each engine family, the mileage at which the engine-system combination is stabilized for emission-data testing. What constitutes a "stabilized vehicle"?

Answer: For the purposes of certification, a stabilized vehicle is one in which the rate of change of emissions with mileage has been reduced to the point where it is accurately represented by the deterioration factor for that engine family. The manufacturer may base its determination directly on vehicle tests, emission data, or on an engineering evaluation of emission data obtained from vehicles. Manufacturers should pay particularly close attention to the catalyst and the relationship between its performance and accumulated mileage when evaluating emissions stabilization.

20. Question: Section 86.082-24(b)(1)(iii) [§86.082-24(b)(2)(v)] allows a manufacturer to alter any emission-data vehicle to represent more than one emission-data vehicle selection. Do the zero-mile limitations apply to the new vehicle; that is, is that manufacturer allowed up to 100 miles to conduct a valid emission test on the reconfigured vehicle prior to conducting official certification tests?

Answer: Yes. The altered emission-data vehicle represents a new emission-data vehicle. The criteria applicable to zero-mile operation of new emission-data vehicle should be followed.

21. Question: Section 86.082-24(b)(1)(iii) [§86.082-24(b)(2)(v)] allows manufacturers to use data generated by reconfigured emission-data vehicles to support certification. What types of prior vehicle operation, maintenance, and testing are considered acceptable for a vehicle that is used to generate certification data?

Answer: Emission-data vehicles should continue to accumulate mileage using an approved mileage accumulation procedure. Also, this mileage accumulation should take place with the vehicle configured to represent the same engine family/exhaust emission control system that will ultimately be tested for emissions certification. The maintenance and testing necessary to reconfigure the test vehicle and to assure that the vehicle is representative of the design intent (that is, the zero-mile testing) for the subsequent vehicles represented may be performed at the time of reconfiguration. In addition to reconfiguring the vehicle to represent other emission-data vehicles the vehicle may also be reconfigured to represent

fuel economy, running change, and developmental vehicles. However, for all emission-data vehicles represented, the manufacturer must make certain that the vehicle and all emission control equipment are in a stabilized condition and representative of design intent at the time certification testing takes place.

It should be noted that a new heavy-duty emission-data engine is no longer required when an engine fails to meet emission standards. Compliance may be demonstrated by reconfiguring the failed engine and retesting to provide assurance that the new "fixed" calibration meets the standards.

22. Question: Section 86.082-26 allows the manufacturer to determine the mileage required to stabilize the emission performance of emission-data vehicles/engines. Once the manufacturer has determined the mileage at which emission-data vehicles are stabilized it may test these vehicles at that mileage. The determination of compliance with emission standards has previously been determined based on multiplying the 4,000-mile test results by the deterioration factor for each engine family. Under the new provisions, if emission-data vehicles are tested at other than 4,000 miles will the deterioration factor still be determined using the 4,000-mile interpolated point?

Answer: Yes.

23. Question: Should the manufacturer complete all testing at its facility, including reconfiguration tests, before making the vehicle available to EPA for confirmatory testing?

Answer: The manufacturer may make the vehicle available to EPA for confirmatory testing either after each emission-data test or after completion of all emission-data testing on that vehicle. However, EPA generally believes that in order to save time most manufacturers will complete all emission-data testing prior to making the vehicle available to EPA.

Questions concerning running changes:

24. Question: Section 86.082-34 allows manufacturers to implement additions of a vehicle or engine after certification and running changes without prior EPA approval when the manufacturer determines that the addition or change will not cause the vehicle to exceed emission standards. The implementation or these rules leads to a number of questions as follows:

A. hay the manufacturer still request prior EPA approval of additions and running changes?

Answer: Yes. The provisions of §86.079-32 and 33, under which the Administrator approves model additions and running changes prior to implementation, are still in effect. The manufacturer should clearly indicate under which section running change approval is to be obtained at the time the change is submitted. However, due to EPA staff limitations manufacturers are encouraged to approve their own running changes under the new provisions of §86.082-34.

B. Will the change in this section cause the present submittal procedures to be changed?

Answer: The implementation of §86.082-34 does not affect the running change or addition of model submittal procedures, only the approval responsibility. Manufacturers should continue to submit running change and addition of model packages using the same format and procedures that are presently in effect. However, when following the optional procedures of this section, the manufacturer must submit the package at least concurrently with the implementation of the change. All test data generated to support the change must be submitted at that time. The current test data acceptability requirements as outlined in our July 9, 1979 guideline and our July 1, 1981 policy letter remain in effect. Manufacturers are encouraged to continue to submit complete and adequate evaluation and data packages so that EPA can continue to minimize its involvement in the evaluation of these changes and the assignment of additional testing requirements.

C. This section allows the Administrator to require additional testing. Under what conditions would the Administrator require additional testing and how will this additional testing affect the manufacturer's ability to continue to produce the affected vehicles?

Answer: The criteria for determining what data are appropriate for demonstrating the acceptability of running changes can be found in our July 9, 1979 running change guideline and our

July 1, 1981 policy letter. If the testing performed meets the acceptability guidelines in these documents the likelihood of EPA requiring additional testing will be minimized.

The action, on the part of EPA, of requiring additional testing does not affect the manufacturer's ability to continue production of the affected vehicles. The manufacturer is only required to halt production if the additional testing required by the Administrator is not submitted to the EPA within 30 days of the EPA request or if the EPA determines on the basis of that testing that the vehicles affected by the change are not in compliance with the applicable emission standards. If EPA requires confirmatory testing for any running change, EPA will notify the manufacturer within the same time frame as in current practice.

Appendix I
Durability Data Outlier Procedure

The procedure for testing for outliers by Snedecor and Cochran, Statistical Methods, pp. 157-158, 6th edition, 1967, Iowa State University Press, will be used as described below. A copy of the Fortran subroutine to be utilized by EPA when processing a deterioration factor with outlier procedure specified is also provided in this appendix.

General Discussion

Linearity is assumed (as in the rest of the deterioration factor calculation procedure), and each pollutant is treated separately. The procedure is as follows:

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Page 2 of Appendix I is stored as CD8109_2.PCX

Page 3 of Appendix I is stored as CD8109_3.PCX

Page 4 of Appendix I is stored as CD8109_4.PCX

Page 5 of Appendix I is stored as CD8109_5.PCX

Section of 40 CFR Part 86	Description of Transferred Authority
7. 86.082-24(f)	The manufacturer, in lieu of the Administrator, will decide the appropriateness of using emission data from previously certified engines to provide test results in lieu of testing similar emission-data and durability-data engines.
8. 86.082-25(c)(2)(ii)(D)	In lieu of the Administrator, the manufacturer will judge the appropriateness of resetting the idle mixture.
9. 86.082-25(c)(2)(iii)	In lieu of the Administrator, the manufacturer will judge the adequacy of an audible or visual signal used to alert the vehicle operator to the need for EGR maintenance. (A/C No. 36A provides further guidance.)
10. 86.082-25(c)(2)(iv)	The manufacturer, in lieu of the Administrator, will judge the adequacy of an audible and/or visual signal to alert the vehicle operator to the need for catalytic converter maintenance. (A/C No. 36A provides further guidance.)
11.86.082-25(c)(2)(v)(A) and (B)	The manufacturer, in lieu of the Administrator, will judge the appropriateness of any engine, emission control system, or fuel system adjustment, repair, or replacement (other than that adjustment, repair, removal, disassembly, cleaning, or replacement specifically cited by the regulations) on a durability-data vehicle.
12. 86.082-25(c)(2)(v)(C)	The manufacturer, in lieu of the Administrator, will judge whether the proposed scheduled maintenance of emission control-related components not specifically authorized to be maintained by the regulations will be performed on engines in use. (A/C

No. 12A provides additional guidance.)

Section of 40 CFR Part 86	Description of Transferred Authority
13. 86.082-25(c)(3)(ii)	The manufacturer, in lieu of the Administrator, will determine the need and appropriateness of performing, in addition to engine idle speed adjustment, other engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on emission-data engines prior to the emission-data test point.
14. 86.082-25(c)(5)(i)	The manufacturer, in lieu of the Administrator, is authorized to waive the complete emission tests before maintenance of any engine where such maintenance is reasonably expected to affect emissions and there is a reasonable expectation that before-maintenance testing is unsafe, may damage or foul test equipment, or is impossible due to poor engine performance.
15. 86.082-26(b)(10)	A manufacturer does not need the Administrator's prior written approval to discontinue an emission-data engine from the certification program.
16. 86.082-30(b)(5)(ii)	Where failed engine configurations are removed from a product line, the manufacturer, in lieu of the Administrator, will select, in place of a failed engine, a different engine configuration to be tested for compliance with applicable standards to fulfill the emission-data engine testing requirements.
17. 86.082-30(b)(5)(iii)	If the manufacturer chooses, under this provision, to modify the test engine and demonstrate that it meets the applicable standards, the manufacturer

	may do so without prior EPA approval. The manufacturer may, at its option and without prior EPA approval, operate and test a new emission-data engine that is the same as the "fixed" engine.

Section of 40 CFR Part 86	Description of Transferred Authority
22. 86.082-30(b)(4)(iv)	In those cases where a vehicle fails due to component or system malfunction, the manufacturer should correct the component or system malfunction and demonstrate that the vehicle meets applicable standards. In accordance with EPA's policy letter, manufacturers are not required to test an additional emission-data vehicle after demonstrating compliance on the fixed vehicle.

Enclosure III

Responsibilities Delegated to Manufacturers
for Heavy-Duty Engines

The following is a list of specific authorities held by the Administrator of EPA to make decisions and take action to administer the heavy-duty engine certification program of the Clean Air Act. Unless rescinded, manufacturers will be authorized to exercise their authorities in lieu of the Administrator in the following areas:

Section of 40 CFR Part 86	Description of Transferred Authority
1. 86.082-21(a)	The manufacturer will maintain an up-to-date application and is not required to continuously update a copy at the Administrator's facility.
2. 86.082-24(a)(3)	The manufacturer, in lieu of the Administrator, may decide to further divide an engine family determined in accordance with §86.082-24(a)(2) if the

		determination is made that the engines may have different emission characteristics. (A/C No. 20B provides further guidance.)
3.	86.082-24(b)	In lieu of the Administrator, the manufacturer will select emission-data engines.
4.	86.082-24(c)(1)	In lieu of the Administrator, the manufacturer will select durability-data engines.
5.	86.082-24(e)(1)	A small-volume manufacturer may elect to use the assigned deterioration factors provided by EPA, in lieu of durability-data engine testing, without prior approval of the Administrator.
6.	86.082-24(e)(2)	The manufacturer may elect to use assigned deterioration factors, provided by EPA, to certify engine families not exceeding combined total sales of 10,000 light-duty vehicles, light-duty trucks, and heavy-duty engines.

Section of 40 CFR Part 86		Description of Transferred Authority
12.	86.082-_5(a)(5)(i)(A) and (B)	The manufacturer, in lieu of the Administrator, will adjudge the appropriateness of any engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement (other than that adjustment, repair, removal, disassembly, cleaning, or replacement specifically cited by the regulations) on a durability-data vehicle.
13.	86.082-25(a)(5)(iii)	The manufacturer, in lieu of the Administrator, will adjudge whether the proposed scheduled maintenance of emission control-related components not specifically authorized to be main-

		tained by these regulations will be performed on vehicles in use. (See A/C No. 12A for additional guidance.)
14.	86.082-25(a)(8)(i)	The manufacturer, in lieu of the Administrator, will determine the need and appropriateness of performing, in addition to engine idle speed adjustment, other engine, emission control system, or fuel system adjustment, repair, removal, disassembly, cleaning, or replacement on emission-data vehicles prior to the emission-data test points.
15.	86.082-25(a)(8)(iii)	The manufacturer, in lieu of the Administrator, will authorize maintenance on emission-data vehicles, after emission-data low-altitude emission testing, to modify the vehicles for emission-data testing at high altitude. (See A/C No. 15A for further guidance.)
16.	86.082-25(a)(9)	Manufacturers may conduct, without prior approval from the Administrator, repairs to vehicle components on emission-data and durability-data vehicles which are not part of the engine, emission control system, or fuel system.

	Section of 40 CFR Part 86	Description of Transferred Authority
17.	86.082-25(a)(10)	The manufacturer, in lieu of the Administrator, is authorized to waive the complete emission tests before maintenance of any vehicle where such maintenance is reasonably expected to affect emissions and there is a reasonable expectation that before-maintenance testing is unsafe, may damage or foul test equipment, or is

		impossible due to poor vehicle performance.
18.	86.082-26(a)(2)	Manufacturers, in lieu of the Administrator, will adjudge the appropriateness of using a modified mileage accumulation process.
19.	86.082-26(a)(8)	Manufacturers do not need the Administrator's prior written approval to discontinue an emission-data vehicle or durability-data vehicle from the certification program.
20.	86.082-30(b)(4)(ii)(A) and (B) as applicable	Where failed vehicle configurations are removed from a product line, manufacturers in lieu of the Administrator, will select, in place of a failed vehicle, a different emission-configuration to be tested for compliance with applicable standards to fulfill the emission-data vehicle testing requirements.
21.	86.082-30(b)(4)(iii)	Where failed vehicle configurations are removed from a product line and replaced by a configuration not previously listed, manufacturers, without prior notice to the Administrator, may modify the failed vehicle to the new configuration and demonstrate that it meets applicable standards. In accordance with EPA's July 1, 1981 policy letter, manufacturers are not required to test an additional emission-data vehicle after demonstrating compliance on the fixed vehicle.

Enclosure II

Responsibilities Delegated to Manufacturers for Light-Duty Vehicles and Light-Duty Trucks

The following is a list of specific authorities held by the Administrator of EPA to make decisions and take action to administer the light-duty vehicle

certification program of the Clean Air Act. Unless rescinded, manufacturers will be authorized to exercise their authorities in lieu of the Administrator in the following areas:

Section of 40 CFR Part 86	Description of Transferred Authority
1. 86.082-21(a)	The manufacturer will maintain an up-to-date application at his facility and is not required to continuously update a copy at the Administrator's facility.
2. 86.082-24(a)(3)	Manufacturers, in lieu of the Administrator, may decide to further divide their engine families determined in accordance with §86.082-24(a)(2) if he determines that they may have different emission characteristics. (See A/C No. 20B.)
3. 86.082-24(b)	In lieu of the Administrator, manufacturers will select their own emission-data vehicles.
4. 86.082-24(c)(1)	In lieu of the Administrator manufacturers will select their own durability-data vehicles.
5. 86.082-24(e)(1)	Small-volume manufacturers may elect to use the assigned deterioration factors provided by EPA, in lieu of durability-data vehicle testing, without prior approval of the Administrator.
6. 86.082-24(e)(2)	The manufacturer may elect to use assigned deterioration factors, provided by EPA, to certify engine families not exceeding combined total sales of 10,000 light-duty vehicles, light-duty trucks, and heavy-duty engines.

Section of 40 CFR Part 86	Description of Transferred Authority
7. 86.082-24(f)	Manufacturers, in lieu of the Administrator, may decide the appropriateness

		of using emission data from previously certified vehicles to provide test results in lieu of testing similar emission-data and durability-data vehicles.
8.	86.082-24(g)(2)	Manufacturers will be required to include the full estimate weight of an optional item in the curb weight when that option is present on more than 33 percent of the vehicles in a car line within the engine-system combination.
9.	86.082-24(g)(3)(i)	In lieu of the Administrator, manufacturers will determine which of the equipment items which are found on more than 33 percent of a car line within an engine-system combination can reasonable be expected to influence emissions. Such items will then be installed, unless excluded under §86.082-24(g)(3)(ii) or deletion is necessary to meet emission-data vehicle selection requirements, on all emission-data and durability-data vehicles representing that car line within that engine-system combination.
10.	86.082-25(a)(3)	In lieu of the Administrator, the manufacturer will adjudge the adequacy of an audible or visual signal used to alert the vehicle operator to the need for EGR maintenance. (See A/C No. 36A for further guidance.)
11.	86. 082-25(a)(4)	The manufacturer, in lieu of the Administrator, may adjudge the adequacy of an audible and/or visual signal to alert the vehicle operator to the need for catalytic converter maintenance. (See A/C No. 36A for further guidance.)

Also see CD8109_6.PCX through CD810911.PCX